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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,498	02/25/2004	Darrell Bryant	04975-00009-US	3116
23416	7590	10/17/2006	EXAMINER	
CONNOLLY BOVE LODGE & HUTZ, LLP P O BOX 2207 WILMINGTON, DE 19899			BELLINGER, JASON R	
			ART UNIT	PAPER NUMBER
			3617	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/786,498	Applicant(s) BRYANT ET AL.	
	Examiner Jason R. Bellinger	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Allowable Subject Matter

1. Applicant is advised that the Notice of Allowance mailed 7 March 2006 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

2. The indicated allowability of claims 1-4 is withdrawn in view of reconsideration of the reference(s) to Cochran et al and Connell et al. Rejections based on the reference(s) follow.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cochran et al in view of Connell et al. Cochran et al shows a disc wheel 10 having a disc 30, and a rim 20. The disc 30 includes a central bolt circle mounting portion 32, an intermediate portion 34 extending radially outwardly from the mounting portion 32, and an outer

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peripheral portion 36 surrounding the intermediate portion 34. The outer peripheral portion 36 forms an outboard tire bead retaining flange for the wheel 10.

The rim 20 includes an inboard tire bead seat portion 24, an inboard tire bead retaining flange 22, a drop center well portion 26, and an outboard bead seat portion 28. The outboard edge of the rim 20 includes a radially in-turned circumferentially continuous rim flange portion 40 that is adjacent the outboard bead seat 28. The disc 30 and rim 20 are welded together by a continuous weld 42 at the in-turned rim portion 40.

Cochran et al does not show the radially in-turned rim flange portion including serrations on an outboard side thereof. As best shown in Figure 8-10 (specifically Figure 10), Connell et al teaches the use of a flange portion 32' having serrations 106 on an outboard surface of the flange 32'. The serrations 106 are in contact with the flange portion 32, wherein the flange portions (32 & 32') are welded together. The serrations 106 enhance and enable penetration of the welding material between the flanges (32 & 32') to provide a high quality, uniform weld.

Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the in-turned flange portion of the rim with serrations in order to facilitate the welding process in order to form a uniform weld.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cochran et al in view of Connell et al as applied to claim 1 above, and further in view of Shimizu et al. Cochran et al shows the disc wheel having vent holes 38 in an intermediate portion.

Cochran et al as modified by Connell et al does not show an axially inboard offset marginal portion surrounding each vent hole as reinforcement. Shimizu et al teaches the use of a disc wheel having vent holes 8 with axially inboard offset marginal portions 5 surrounding each vent hole 8 as reinforcement. Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the wheel of Cochran et al as modified by Connell et al with reinforcing sections around each vent hole for the purpose of increasing the strength of the intermediate portion of the disc wheel to prevent warpage at the vent hole after prolonged usage.

While Cochran et al as modified by Connell et al and Shimizu et al does not specify that the vent holes are formed by a coining operation, only the structure of the product need be found in a product by process claim, given that the product may be formed by a different process (see MPEP 2113). In this case, the vent holes may be formed by a stamping, molding, or casting operation.

Response to Arguments

6. Applicant's arguments filed 9 January 2006 have been fully considered but they are not persuasive. The Applicant argues that Connell et al does not disclose serrations, instead disclosing knurls. The Applicant then argues that knurls are materially different from serrations, and do not achieve the same results as the serrations of the claimed invention.

However, while Connell et al does refer to the roughened sections 30 as knurls, the embodiment of Figure 8 clearly shows a serrated pattern. The specification of the instant application does not provide any special distinction between the structure of serrations and knurls. Furthermore, both terms generally describe structures of alternating ridges, and given the broadest reasonable interpretation of the terms, the ridges shown in Figure 8 of Connell et al can be reasonably construed as "serrations" despite being described as "knurls".

The Applicant is invited to provide evidence (such as affidavits or declarations under 37 CFR 1.131 or 1.132) showing that serrations have a distinct structure from knurls.

7. In response to applicant's argument that Connell et al is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

In this case, Connell et al teaches the use of surface features (namely, knurls and/or serrations) for creating an improved welded junction between two elements.

8. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon

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hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

9. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, the Applicant argues that there is no suggestion to combine the Cochran et al and Connell et al references. However, it should be noted that the Applicant does not provide any reasons for this argument. Regardless, paragraph 4 above clearly sets forth the motivation for combining the references.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R. Bellinger whose telephone number is 571-272-6680. The examiner can normally be reached on Mon - Thurs (9:00-4:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason R Bellinger
Primary Examiner
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10/12/06